Message

From: Schechter, Kathryn [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=01463F1326694474BD56343BFAC423D7-SCHECHTER, KATHRYN]

Sent: 2/22/2021 4:16:30 PM

To: Nazef, Laura [Nazef.Laura@epa.gov]

Subject: RE: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

FYI, I forwarded you email to Tracy. It is good to see we have the same response!

Dr. Kathy Schechter Chemist, Industrial Chemistry Branch (MC-7406M) 1201 Constitution Ave., NW Washington, DC 20460 Telephone: (202) 564-8589

Fax: (202) 564-8679

From: Nazef, Laura < Nazef. Laura@epa.gov> Sent: Monday, February 22, 2021 10:39 AM

To: Williamson, Tracy < Williamson. Tracy@epa.gov>; Anapolle, Kent < Anapolle. Kent@epa.gov>

Cc: Schechter, Kathryn <Schechter.Kathryn@epa.gov>; Lloyd, Tyler <Lloyd.Tyler@epa.gov>; Butler, Tristan

<Butler.Tristan@epa.gov>

Subject: RE: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Thanks Tracy.

From: Williamson, Tracy < Williamson. Tracy@epa.gov>

Sent: Monday, February 22, 2021 10:33 AM

To: Anapolle, Kent <Anapolle.Kent@epa.gov>; Nazef, Laura <Nazef.Laura@epa.gov>

Cc: Schechter, Kathryn < Schechter. Kathryn@epa.gov >; Lloyd, Tyler < Lloyd. Tyler@epa.gov >; Butler, Tristan

<Butler.Tristan@epa.gov>

Subject: RE: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Hi Laura,

OPPT uses CAS systematic nomenclature conventions to name individual substances under TSCA. The 1000+ substances on the TSCA Inventory, for example, are named using CAS nomenclature. Please contact Kent Anapolle if you have any questions.

Tracy

From: Schechter, Kathryn < Schechter.Kathryn@epa.gov>

Sent: Monday, February 22, 2021 9:42 AM

To: Williamson, Tracy < Williamson. Tracy@epa.gov >

Subject: FW: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

From: Nazef, Laura < Nazef.Laura@epa.gov> Sent: Thursday, February 18, 2021 5:38 PM

To: Schechter, Kathryn < Schechter. Kathryn@epa.gov>

Cc: Lloyd, Tyler <<u>Lloyd.Tyler@epa.gov</u>>; Butler, Tristan <<u>Butler.Tristan@epa.gov</u>>

Subject: FW: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Hi Kathy,

Please see the request below. Are you aware of an EPA naming protocol for PFAS? Can I identify you as a contact to discuss this with NIST?

Thanks, Laura

From: Mills, Marc <mills.marc@epa.gov>
Sent: Thursday, February 18, 2021 5:11 PM

To: Nazef, Laura <Nazef.Laura@epa.gov>; Williams, Antony <Williams.Antony@epa.gov>

Subject: FW: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Laura and Tony

I have received a similar request regarding naming conventions for PFAS This request (attached) is from NIST. They are funded by DoD to develop a PFAS mass spectrometry library for high res non-targeted analysis. ORD is engaged as one of the funded PFAS forensic projects that will support this library. In this effort, they want to adopt a standard naming convention and it was suggested EPA has developed or adopted such a convention. This is a bit far afield from the PFAS work I do, so I reaching out to you to see if I can provide NIST your contact info for a conversation on this.

Your help is appreciated.

Thanks Marc

Marc A. Mills, Ph.D.

United States Environmental Protection Agency
Office of Research and Development

26 W. Martin Luther King Dr. Cincinnati, OH 45268

T. 513.569.7322

F. 513.569.7620

mills.marc@epa.gov

From: Matthews, Lisa < Matthews.Lisa@epa.gov > Sent: Wednesday, 10 February, 2021 03:00 PM

To: Nazef, Laura <Nazef.Laura@epa.gov>; Richard, Ann <Richard.Ann@epa.gov>; Mills, Marc <mills.marc@epa.gov>

Cc: McCabe, Erin <mccabe.erin@epa.gov>; Williams, Antony <Williams.Antony@epa.gov>; Patlewicz, Grace

<<u>Patlewicz.Grace@epa.gov</u>>; Lloyd, Tyler <<u>Lloyd.Tyler@epa.gov</u>> **Subject:** RE: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Laura and Tony,

Would you be willing to speak to this issue on our call with MPART on Feb 25 from 10-11 AM? These are technical exchanges by EPA and MPART. We have a couple of other agenda topics in the works.

Thank you,

From: Nazef, Laura < Nazef. Laura@epa.gov > Sent: Wednesday, February 10, 2021 2:55 PM

To: Richard, Ann Richard.Ann@epa.gov; Matthews, Lisa Matthews.Lisa@epa.gov; Mills, Marc

<mills.marc@epa.gov>

Cc: McCabe, Erin < mccabe.erin@epa.gov>; Williams, Antony < williams.Antony@epa.gov>; Patlewicz, Grace

<<u>Patlewicz.Grace@epa.gov</u>>; Lloyd, Tyler <<u>Lloyd.Tyler@epa.gov</u>> **Subject:** RE: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Hi all,

In case this is helpful as you gather information for your call, there is a definition for long-chain perfluoroalkyl carboxylate (LCPFAC) chemicals in the recent TSCA SNUR:

 $\frac{https://www.federalregister.gov/documents/2020/07/27/2020-13738/long-chain-perfluoroalkyl-carboxylate-and-perfluoroalkyl-sulfonate-chemical-substances-significant$

Here is the chemical structure definition used:

- b) Chemical substances and significant new uses subject to reporting. (1) The chemical substances identified in this paragraph, where 5 < n < 21 or 6 < m < 21, are subject to reporting under this section for the significant new uses described in paragraph (b)(4)(i) and (b)(4)(iv) of this section.
- (i) CF₃ (CF₂)_n-COO M where M = H⋅ or any other group where a formal dissociation can be made;
- (ii) CF_3 (CF_2)_n- $CH=CH_2$;
- (iii) CF_3 (CF_2)_n-C(=O)-X, where X is any chemical moiety;
- (iv) CF₃ (CF₂)_m-CH₂-X, where X is any chemical moiety; and
- (v) CF_3 (CF_2)_m-Y-X, where Y = non-S, non-N heteroatom and where X is any chemical moiety.

Other offices may have additional information to share regarding PFAS definitions.

Best regards, Laura

Laura Nazef
International Coordinator
Office of Chemical Safety and Pollution Prevention
U.S. Environmental Protection Agency
+1 (202) 564-7523
nazef.laura@epa.gov

From: Richard, Ann < Richard. Ann@epa.gov > Sent: Wednesday, February 10, 2021 1:17 PM

To: Matthews, Lisa < Matthews. Lisa@epa.gov >; Mills, Marc < mills.marc@epa.gov >

Cc: McCabe, Erin <mccabe.erin@epa.gov>; Williams, Antony <Williams.Antony@epa.gov>; Nazef, Laura

<Nazef.Laura@epa.gov>; Patlewicz, Grace <Patlewicz.Grace@epa.gov>

Subject: RE: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Hi Lisa.

I and my colleagues (Tony Williams and Grace Patlewicz) have been involved in reviewing an OECD document on the topic of PFAS terminology, as well as responding to some queries from Laura Nazef (OCSPP) on PFAS definitions for other EU regulatory efforts. Tony has also had conversations with groups across EPA to develop an "encompassing" structural filter definition that we use on the CompTox Chemicals Dashboard to define our "PFAS Master List". As you might guess, there is no single PFAS definition, but rather the chemical class tends to be defined to suit the needs (and concerns) of the various interested parties. Grace and I are happy to help however we can, but recommend that Tony and Laura might be the best persons to inform your discussions with MPART.

Thanks,

Ann

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Ann M Richard, PhD
Research Chemist
Mail Drop D143-02
Center for Computational Toxicology & Exposure (CCTE)
Computational Chemistry & Cheminformatics Branch
Office of Research & Development
US Environmental Protection Agency

US Environmental Protection Agency Research Triangle Park, NC 27711

tel: 919-541-3934 email: <u>richard.ann@epa.gov</u> office: EPA Main Facility, Rm D131C

<><><><><><>

From: Matthews, Lisa < Matthews.Lisa@epa.gov>

Sent: Tuesday, February 9, 2021 1:49 PM

To: Richard, Ann <Richard.Ann@epa.gov>; Mills, Marc <mills.marc@epa.gov>

Cc: McCabe, Erin <mccabe.erin@epa.gov>

Subject: EPA ORD-MPART Call on PFAS Destruction (Feb. 25)

Hi Ann and Marc,

Hope all is well with both of you. ORD has been having regular calls with the Michigan PFAS Action Response Team (MPART) since last year to discuss PFAS destruction research.

Our next call is coming up on February 25 from 10-11 AM ET. One of the topics MPART would like EPA to cover is how EPA programs are defining PFAS (see below). Would you be able to talk about this on our call?

Thanks, and please let me know if you have any questions. We'll be working to finalize the call agenda by the middle of next week.

Lisa

From: Rodan, Bruce < rodan.bruce@epa.gov >

Sent: Tuesday, February 9, 2021 1:33 PM

To: Burden, Susan < <u>Burden.Susan@epa.gov</u>>; Matthews, Lisa < <u>Matthews.Lisa@epa.gov</u>> **Subject:** RE: Call for Agenda topics: Feb. 25 EPA ORD-MPART-ORD Call on PFAS Destruction

Lisa,

There have been some debates about defining PFAS – very minutia. Ann Richards in CCTE will know, and Marc Mills worked on a recent manuscript that we back and forth over the OECD definition.

Dr. Bruce Rodan
Associate Director for Science
EPA Office of Research and Development

From: Burden, Susan <<u>Burden.Susan@epa.gov</u>>
Sent: Tuesday, February 9, 2021 12:37 PM
To: Matthews, Lisa <<u>Matthews.Lisa@epa.gov</u>>
Cc: Rodan, Bruce <rodan.bruce@epa.gov>

Subject: RE: Call for Agenda topics: Feb. 25 EPA ORD-MPART-ORD Call on PFAS Destruction

Hi Lisa,

Carlos Pachon is the lead in OLEM for the destruction and disposal guidance, so he would be the person to reach out to for the MPART call.

As far as EPA programs defining PFAS, I'm not aware of any EPA programs that have had to define PFAS "at the organic chemistry level" (i.e., not by CASRNs). I don't know that any of EPA's programs would have much to say about this issue at this point in time.

Thanks,

Susan

Susan Burden, Ph.D.
Scientific Support Advisor & ORD PFAS Executive Lead
Office of Science Advisor, Policy and Engagement
Office of Research and Development
US Environmental Protection Agency
Phone: (202) 564-6308 | (202) 740-0169

Email: burden.susan@epa.gov

From: Matthews, Lisa < Matthews.Lisa@epa.gov>
Sent: Tuesday, February 09, 2021 12:12 PM
To: Burden, Susan < Burden.Susan@epa.gov>
Cc: Rodan, Bruce < rodan.bruce@epa.gov>

Subject: FW: Call for Agenda topics: Feb. 25 EPA ORD-MPART-ORD Call on PFAS Destruction

Hi Susan,

Is the interim destruction guidance from OLEM? Who is point person in OLEM for this issue that we could invite to join the call with MPART?

Also thoughts on how EPA programs are defining PFAS?

Thanks, Lisa From: Sliver, Steve (EGLE) <SLIVERS@michigan.gov>

Sent: Tuesday, February 9, 2021 7:51 AM

To: Phelps, Lara < Phelps.Lara@epa.gov>; Matthews, Lisa < Matthews.Lisa@epa.gov>; Watkins, Tim

< Watkins. Tim@epa.gov >; Speth, Thomas < Speth. Thomas@epa.gov >

Cc: Zambrana, Jose < Zambrana.Jose@epa.gov>; Mattas-Curry, Lahne < Mattas-Curry.Lahne@epa.gov>; McCabe, Erin

<mccabe.erin@epa.gov>; taylorj1@michigan.gov

Subject: RE: Call for Agenda topics: Feb. 25 EPA ORD-MPART-ORD Call on PFAS Destruction

Good morning Lisa,

In addition, would it be possible for someone from EPA to cover next steps with the interim destruction guidance, especially the request for additional field testing and implementation of the interim storage option?

Following up on Joy's presentation of our working description of PFAS last time, we are also interested in how EPA is defining PFAS in its various programs (at the organic chemistry level), understanding that different EPA programs may define PFAS differently. Attached is a paper that provides additional detail on a description; MPART is currently evaluating this paper and determining its implications to the current working description.

Thanks!

Steve

From: Phelps, Lara < Phelps. Lara@epa.gov > Sent: Monday, February 1, 2021 2:00 PM

To: Matthews, Lisa < Matthews.Lisa@epa.gov >; Sliver, Steve (EGLE) < SLIVERS@michigan.gov >; Watkins, Tim

Cc: Zambrana, Jose < Zambrana.Jose@epa.gov>; Mattas-Curry, Lahne < Mattas-Curry.Lahne@epa.gov>; McCabe, Erin

<mccabe.erin@epa.gov>

Subject: RE: Call for Agenda topics: Feb. 25 EPA ORD-MPART-ORD Call on PFAS Destruction

CAUTION: This is an External email. Please send suspicious emails to abuse@michigan.gov

Hi Lisa -

The two immediate things that come to mind to mention are the AWMA IT3 Paper presented last week - Combustion of C1 and C2 PFAS: Kinetic Modeling and Experiments; and Other Test Method (OTM) – 45, which we will be talking to the larger ECOS community the week before, if there were some additional follow-up.

Thanks!

Lara

Lara P. Phelps, Director

Center for Environmental Measurement and Modeling, Air Methods & Characterization Division U. S. Environmental Protection Agency, Office of Research and Development

109 T.W. Alexander Drive (E343-04), Research Triangle Park, NC 27711 Office: 919-541-5544 | Cell: 984-287-0594 | Email: phelps.lara@epa.gov

"Protecting human health and the environment by delivering innovative measurement and modeling solutions to EPA and its partners."

From: Matthews, Lisa < Matthews. Lisa@epa.gov>

Sent: Monday, February 01, 2021 11:59 AM

To: <u>slivers@michigan.gov</u>; Watkins, Tim < <u>Watkins.Tim@epa.gov</u>>; Phelps, Lara < <u>Phelps.Lara@epa.gov</u>>; Speth, Thomas < Speth.Thomas@epa.gov>

Cc: Zambrana, Jose < <u>Zambrana.Jose@epa.gov</u>>; Mattas-Curry, Lahne < <u>Mattas-Curry.Lahne@epa.gov</u>>; McCabe, Erin < <u>mccabe.erin@epa.gov</u>>

Subject: Call for Agenda topics: Feb. 25 EPA ORD-MPART-ORD Call on PFAS Destruction

Good morning,

We have our EPA ORD-MPART quarterly call on PFAS destruction research coming up on Thursday, February 25 from 10-11 AM ET.

Please send <u>Erin McCabe</u> and me your suggestions for agenda topics by **Monday, February 8** – including any new information to share with the group.

Agenda topics from past calls are listed below:

November 18, 2020

- MPART Working PFAS Description Joy Taylor Morgan, Michigan EGLE Air Quality Division's Toxics Unit
- 6:2 FTS (fluorotelomer sulfonate) Screening Level for Air Mike Depa, Michigan EGLE, Air Quality Division's Toxics Unit
- EPA ORD Research Updates Tim Watkins, Director, Center for Environmental Measurement and Modeling, EPA
 ORD

August 26, 2020

- Treating PFAS water contamination with cold plasma Curt Wolf, University of Michigan
- Thermal oxidizer design installed at the Chemours Fayetteville Works facility in NC Chun-Wai Lee and Bill Linak, EPA ORD
- Australia cement kiln data for destruction of PFAS Chun-Wai Lee and Bill Linak, EPA ORD
- Pilot scale testing on Rainbow Furnace Chun-Wai Lee and Bill Linak, EPA ORD

June 25, 2020 follow-up call

- Participation in EPA's multi-lab study on a drinking water analytical method with isotope dilution (ultimately a DOD decision)
- Flexibility in drinking water analytical methods for residential wells
 - EPA will continue to only stand behind Methods 537 and 522, MPART can use other methods, but EPA can't comment on the validity of the data

May 28, 2020

- Bench-Scale Tests on Stabilization/Solidification of PFAS-Contaminated Soils and Biosolids Dan Cassidy,
 Western Michigan University
- Update on EPA's PFAS Innovative Treatment Team Brian Gullett, EPA ORD
- Managing PFAS in Spent Adsorption Media Craig Patterson, Tom Speth and Marc Mills, EPA ORD

March 23, 2020

 ORD researchers discussed current and planned EPA PFAS research with the MPART. They are interested in EPA's PFAS destruction research and decontamination efforts, particularly for fire departments that have used AFFF. ORD provided overview of our PFAS thermal destruction research.

Thank you!

Lisa

Lisa Matthews

Senior Advisor and State Liaison US EPA Office of Research and Development 202-564-6669 (desk) | 202-577-4035 (cell) matthews.lisa@epa.gov

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